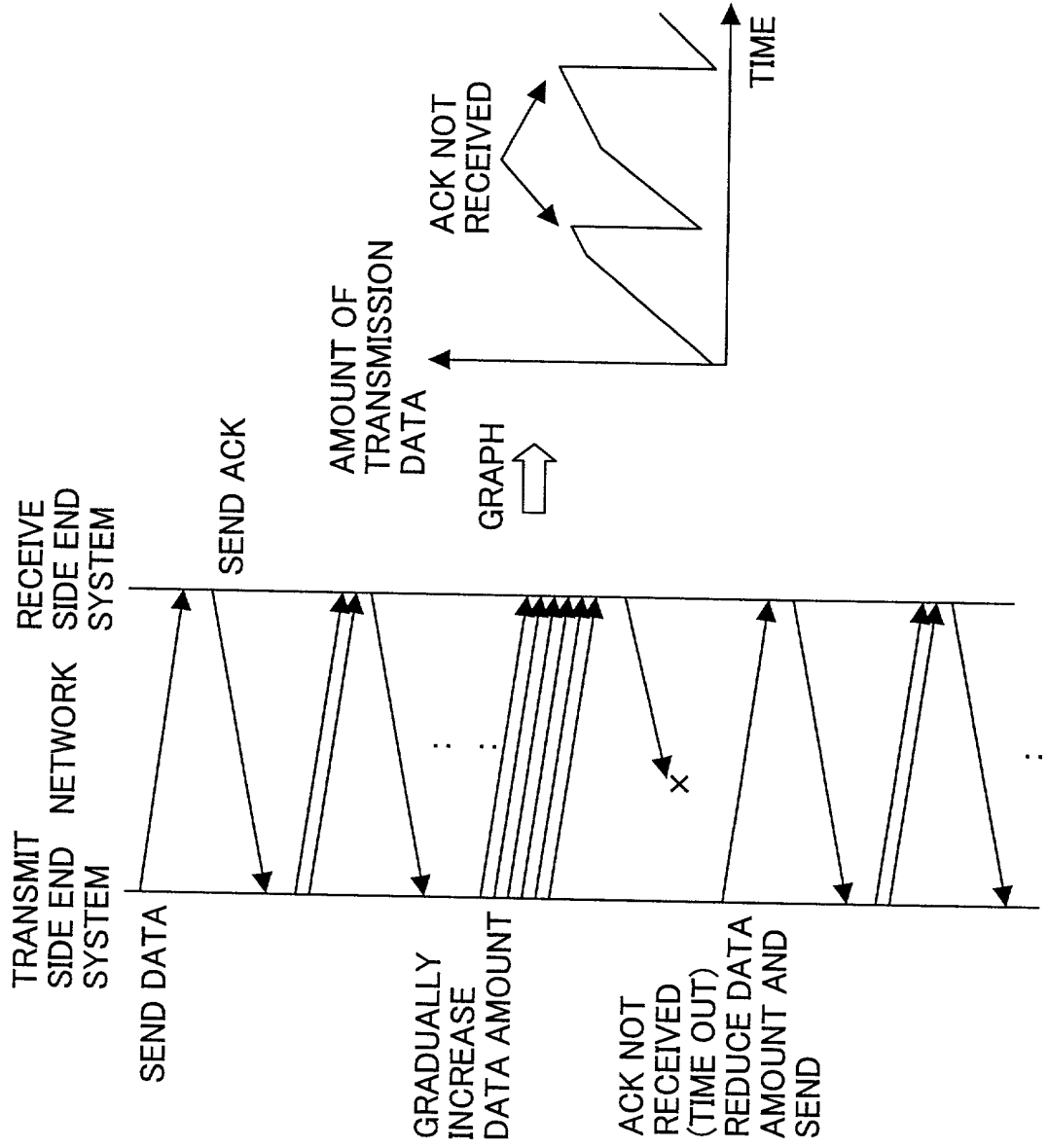


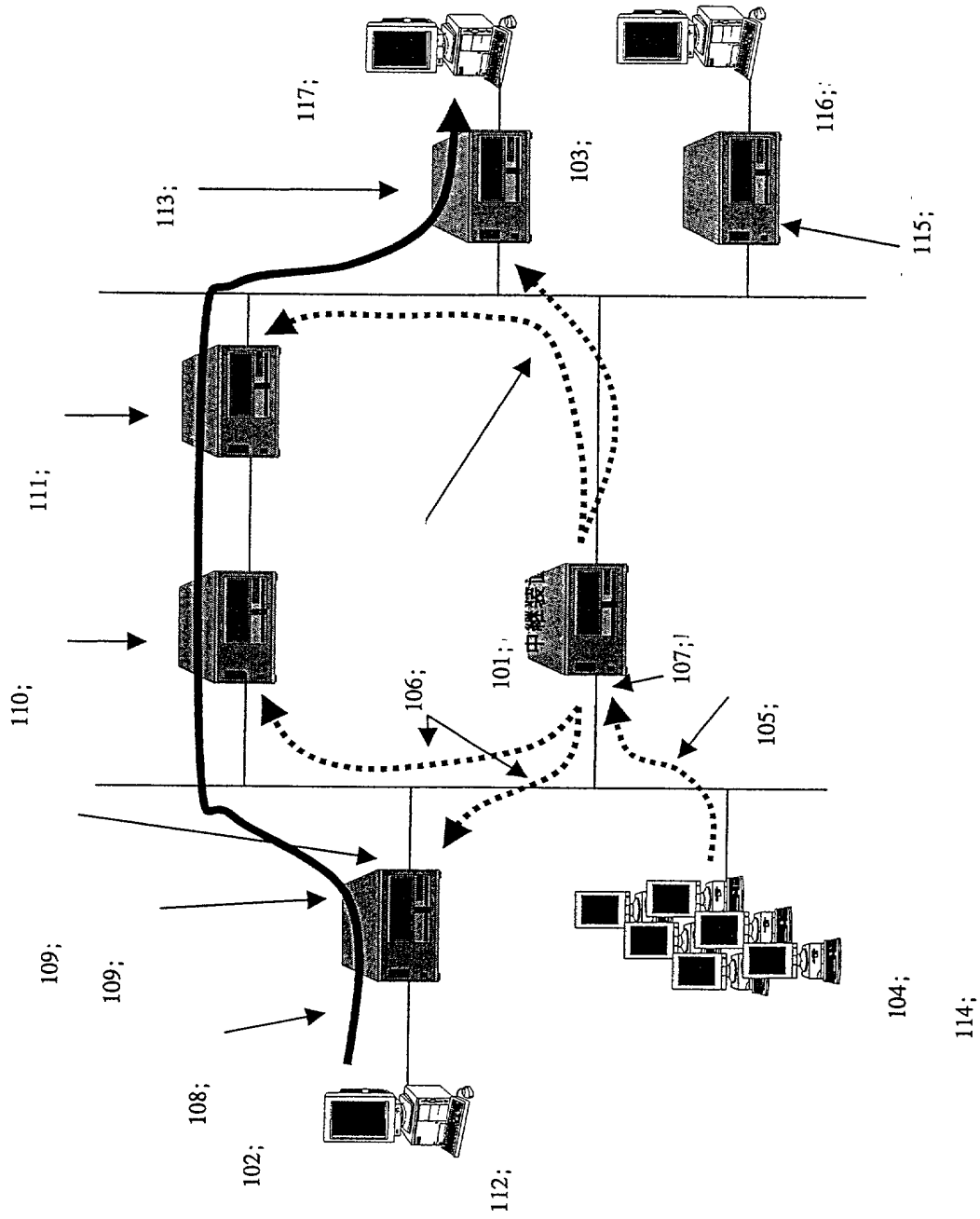
FIG.1 PRIOR ART



APPLICATION LAYER
TRANSPORT LAYER (TCP, UDP, etc.)
NETWORK LAYER (IP = INTERNET PROTOCOL etc.)
DATA LINK LAYER (ETHERNET etc.)
PHYSICAL LAYER (CABLE, OPTICAL, FIBER, etc.)

PROTOCOL STACK

FIG. 2



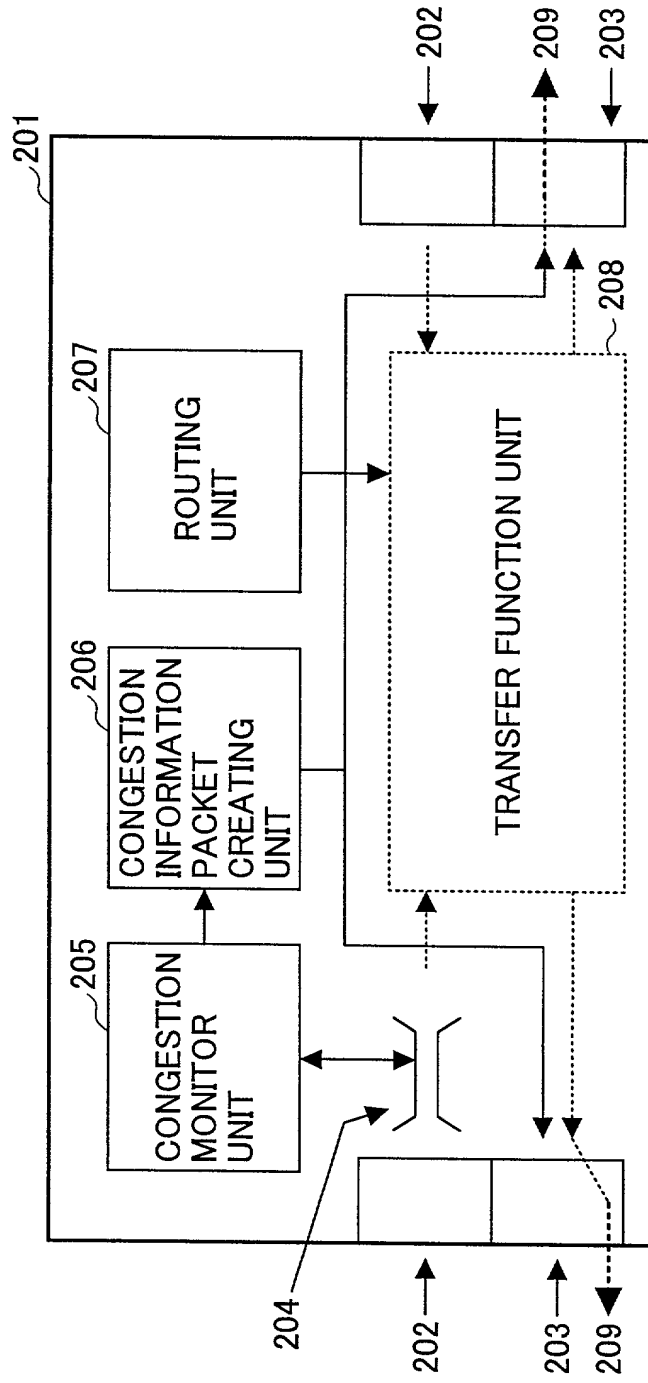


FIG. 3A

FIG.3B

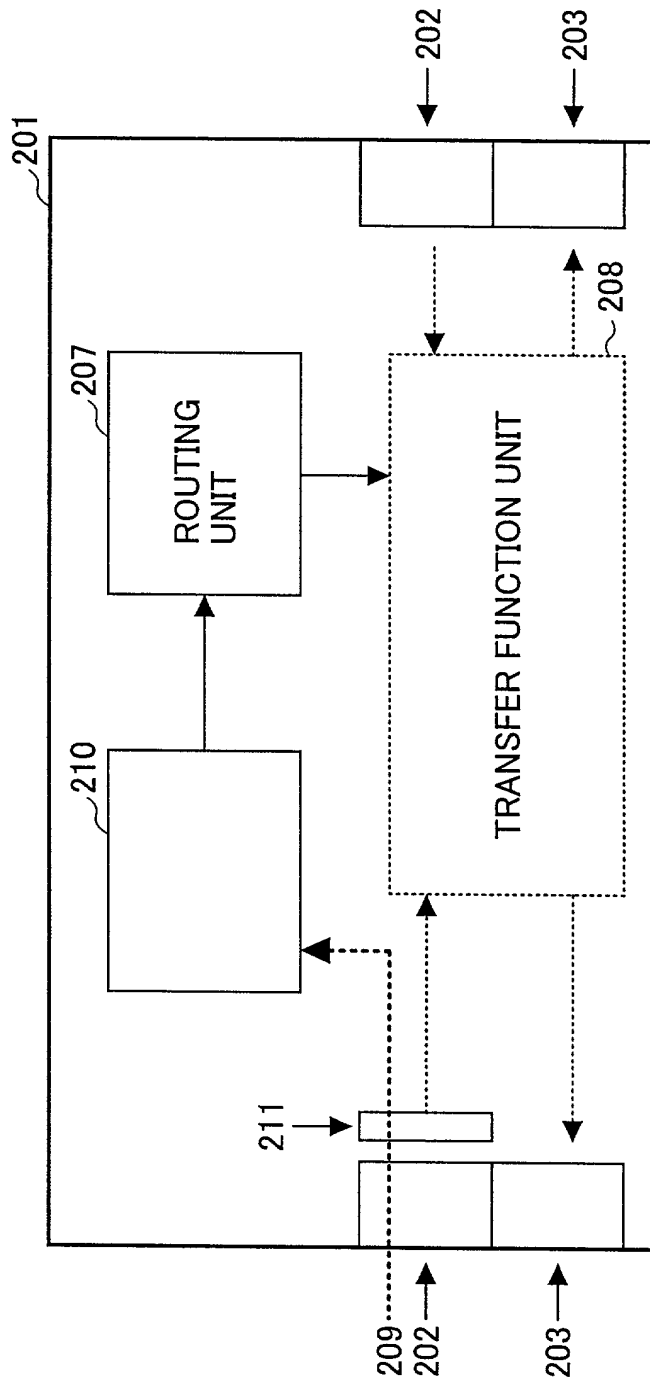


FIG.4

DATA DESTINATION	ROUTER OF NEXT STAGE	NUMBER OF ROUTERS
NETWORK C	101	3
NETWORK D	101	3
:		:
:		:

← 301



UPDATE BASED ON RECEIVED
CONGESTION INFORMATION

DATA DESTINATION	ROUTER OF NEXT STAGE	NUMBER OF ROUTERS
NETWORK C	110	4
NETWORK D	110	4
:		:
:		:

← 302

FIG. 5

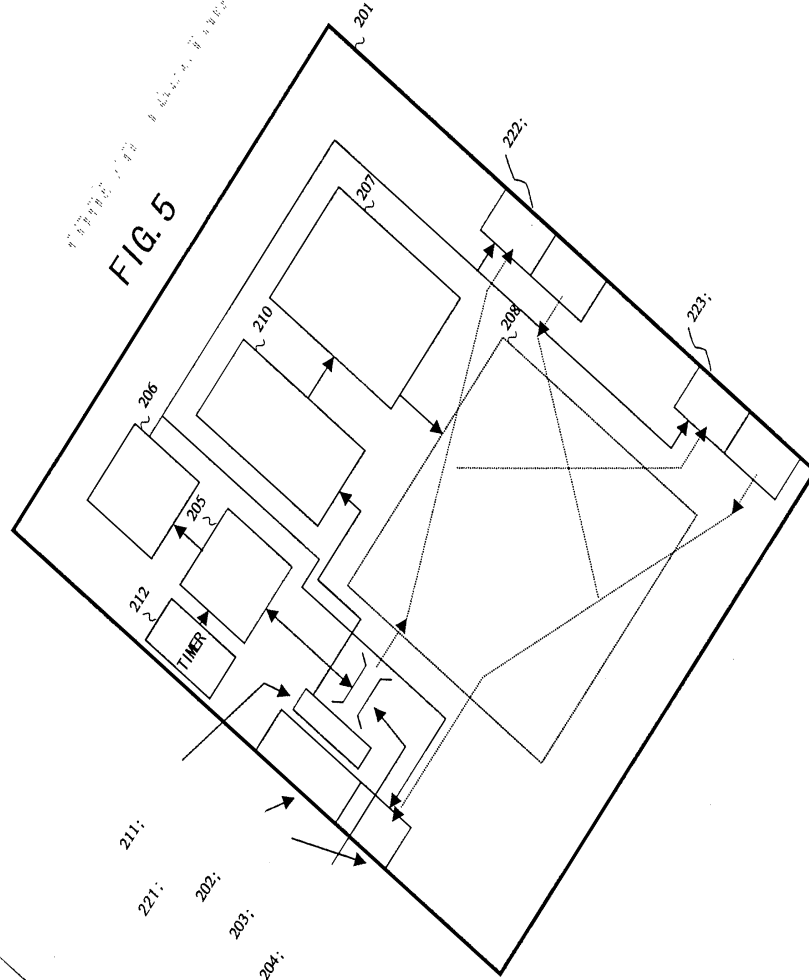


FIG. 6

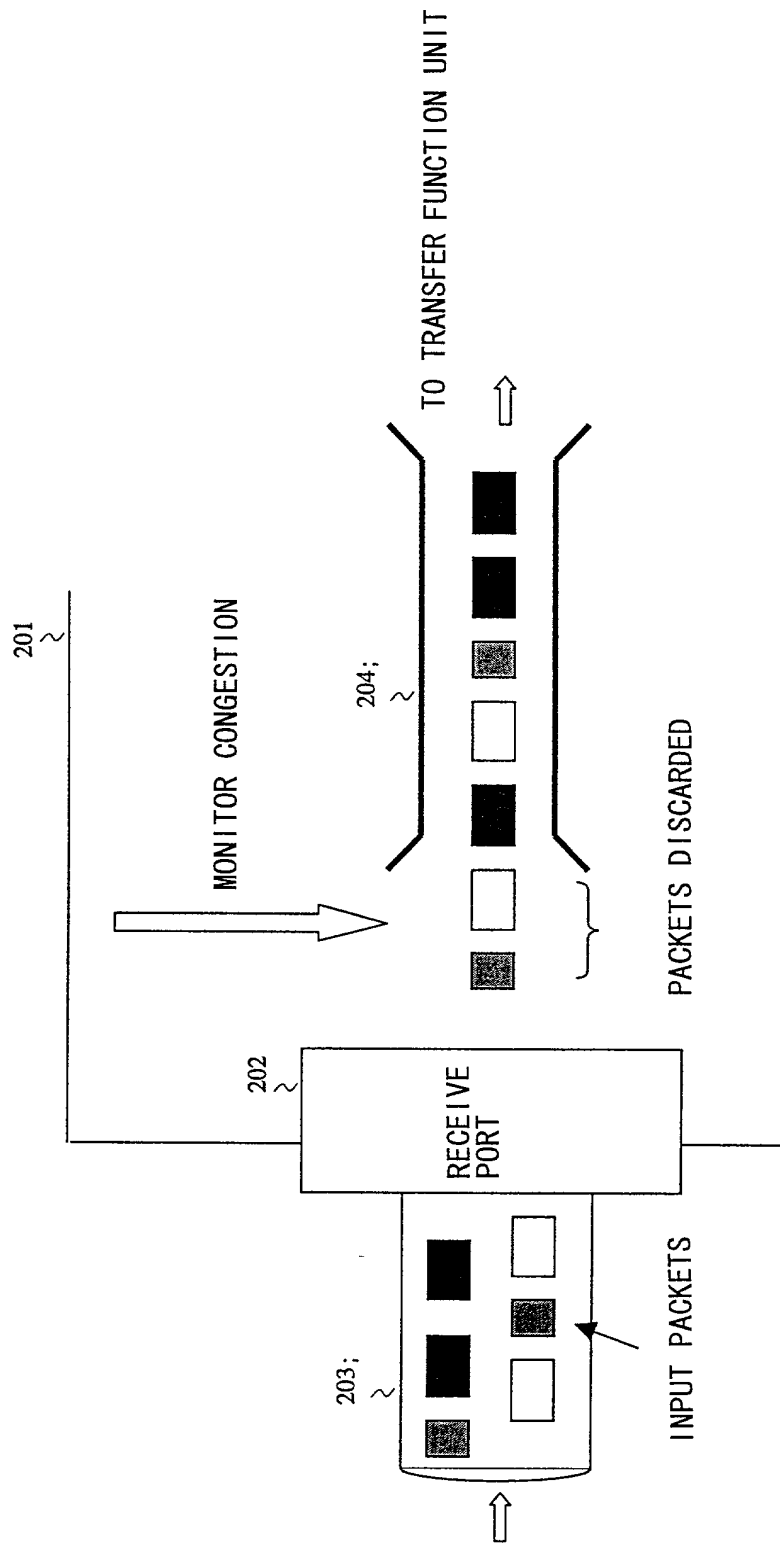


FIG. 7

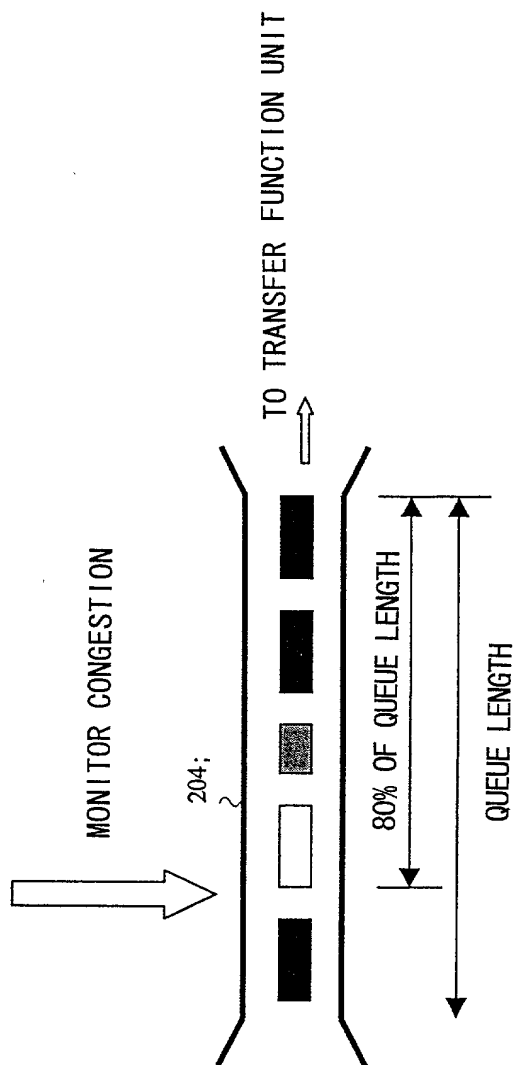
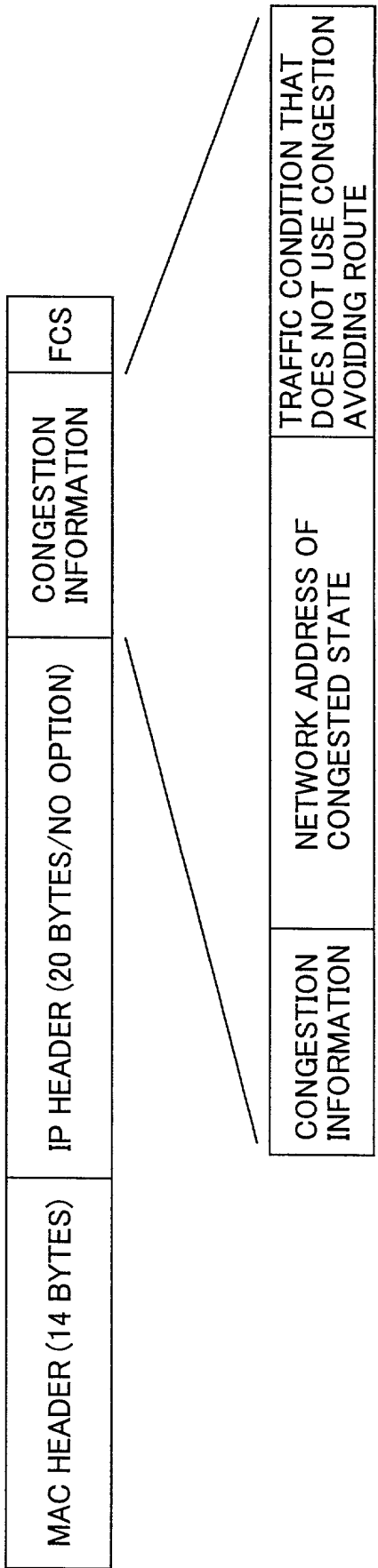


FIG.8

CONGESTION INFORMATION FRAME (ETHERNET)



01 : CONGESTION/10 : RESTORATION FROM CONGESTION

FIG. 9

INTERNET/INTRANET/ISP NETWORK

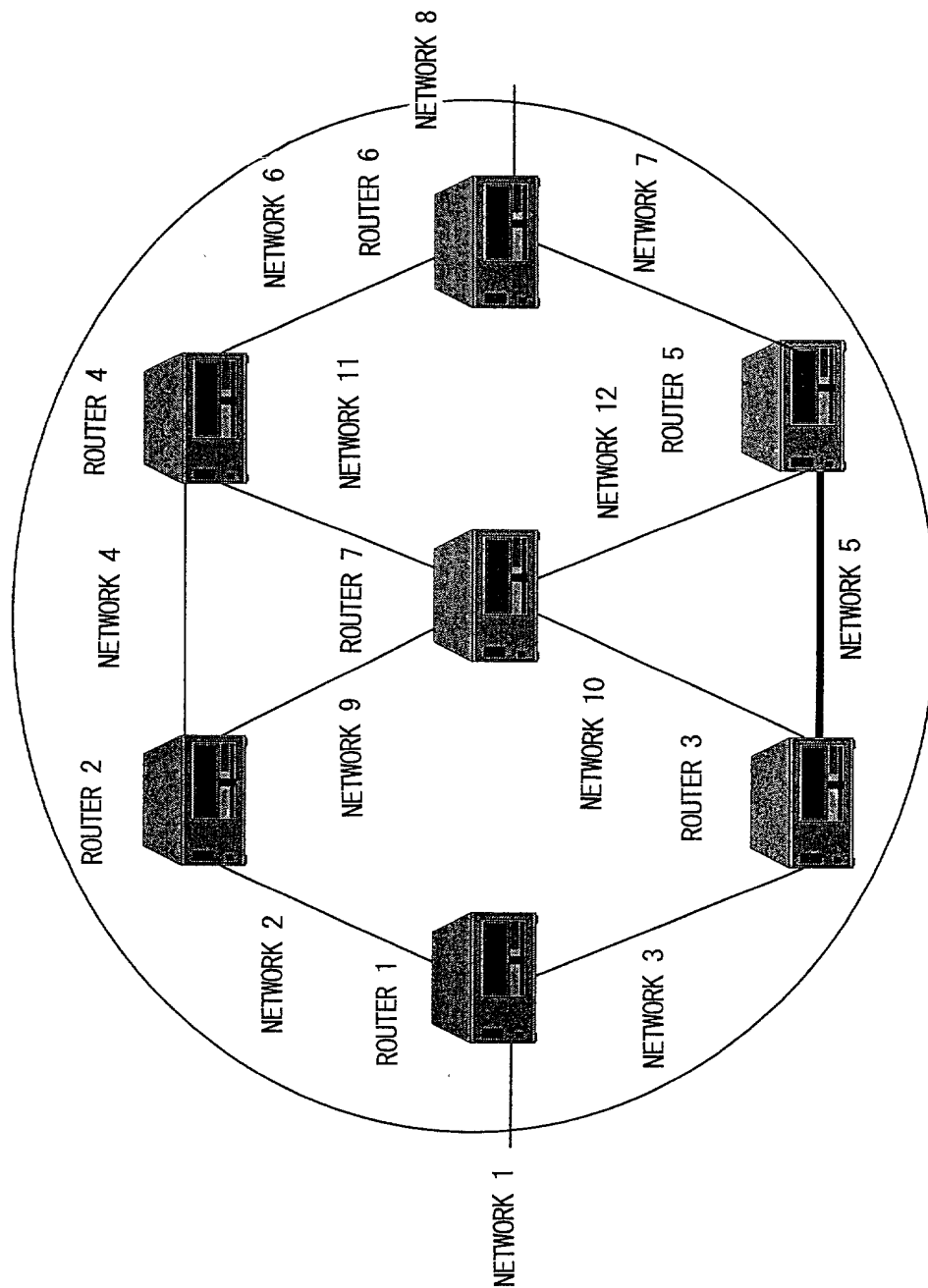


FIG. 10

TOPOLOGY DATABASE												
ROUTER	NETWORK											
	1	2	3	4	5	6	7	8	9	10	11	12
1	0	0	0									
2		0		0					0			
3			0		0					0		
4				0		0					0	
5					0		0					0
6						0	0	0				
7									0	0	0	0

FIG.11

ROUTE NUMBER	ROUTE FROM NETWORK 1 TO NETWORK 7	NUMBER OF ROUTER STAGES	VALID
1	ROUTER 1 – ROUTER 3 – ROUTER 5	3	<input type="radio"/>
2	ROUTER 1 – ROUTER 2 – ROUTER 7 – ROUTER 5	4	<input type="radio"/>
3	ROUTER 1 – ROUTER 2 – ROUTER 4 – ROUTER 6	4	<input type="radio"/>
4	ROUTER 1 – ROUTER 2 – ROUTER 7 – ROUTER 4 – ROUTER 6	5	<input type="radio"/>
5	ROUTER 1 – ROUTER 3 – ROUTER 7 – ROUTER 4 – ROUTER 6	5	<input type="radio"/>
6	ROUTER 1 – ROUTER 2 – ROUTER 4 – ROUTER 7 – ROUTER 5	5	<input type="radio"/>
7	ROUTER 1 – ROUTER 2 – ROUTER 7 – ROUTER 3 – ROUTER 5	5	<input type="radio"/>
8	ROUTER 1 – ROUTER 3 – ROUTER 5 – ROUTER 7 – ROUTER 4 – ROUTER 6	6	<input type="radio"/>
9	ROUTER 1 – ROUTER 3 – ROUTER 7 – ROUTER 2 – ROUTER 4 – ROUTER 6	6	<input type="radio"/>

FIG.13

ROUTE NUMBER	ROUTE FROM NETWORK 1 TO NETWORK 7	NUMBER OF ROUTER STAGES	VALID	EXCEPTIONAL CONDITION
1	ROUTER 1 - ROUTER 3 - ROUTER 5	3	x	<ul style="list-style-type: none"> TRANSMISSION SOURCE IP ADDRESS: xxx.xx.xxx.xxx INTERFACE: #y PROTOCOL ID: z
2	ROUTER 1 - ROUTER 2 - ROUTER 4 - ROUTER 6	4	O	
3	ROUTER 1 - ROUTER 2 - ROUTER 7 - ROUTER 5	4	O	
4	ROUTER 1 - ROUTER 2 - ROUTER 7 - ROUTER 4 - ROUTER 6	5	O	
5	ROUTER 1 - ROUTER 3 - ROUTER 7 - ROUTER 4 - ROUTER 6	5	O	
6	ROUTER 1 - ROUTER 2 - ROUTER 4 - ROUTER 7 - ROUTER 5	5	O	
7	ROUTER 1 - ROUTER 2 - ROUTER 7 - ROUTER 3 - ROUTER 5	5	O	
8	ROUTER 1 - ROUTER 3 - ROUTER 5 - ROUTER 7 - ROUTER 4 - ROUTER 6	6	O	
9	ROUTER 1 - ROUTER 3 - ROUTER 7 - ROUTER 2 - ROUTER 4 - ROUTER 6	6	O	

FIG. 14

INTERNET/INTRANET/ISP NETWORK

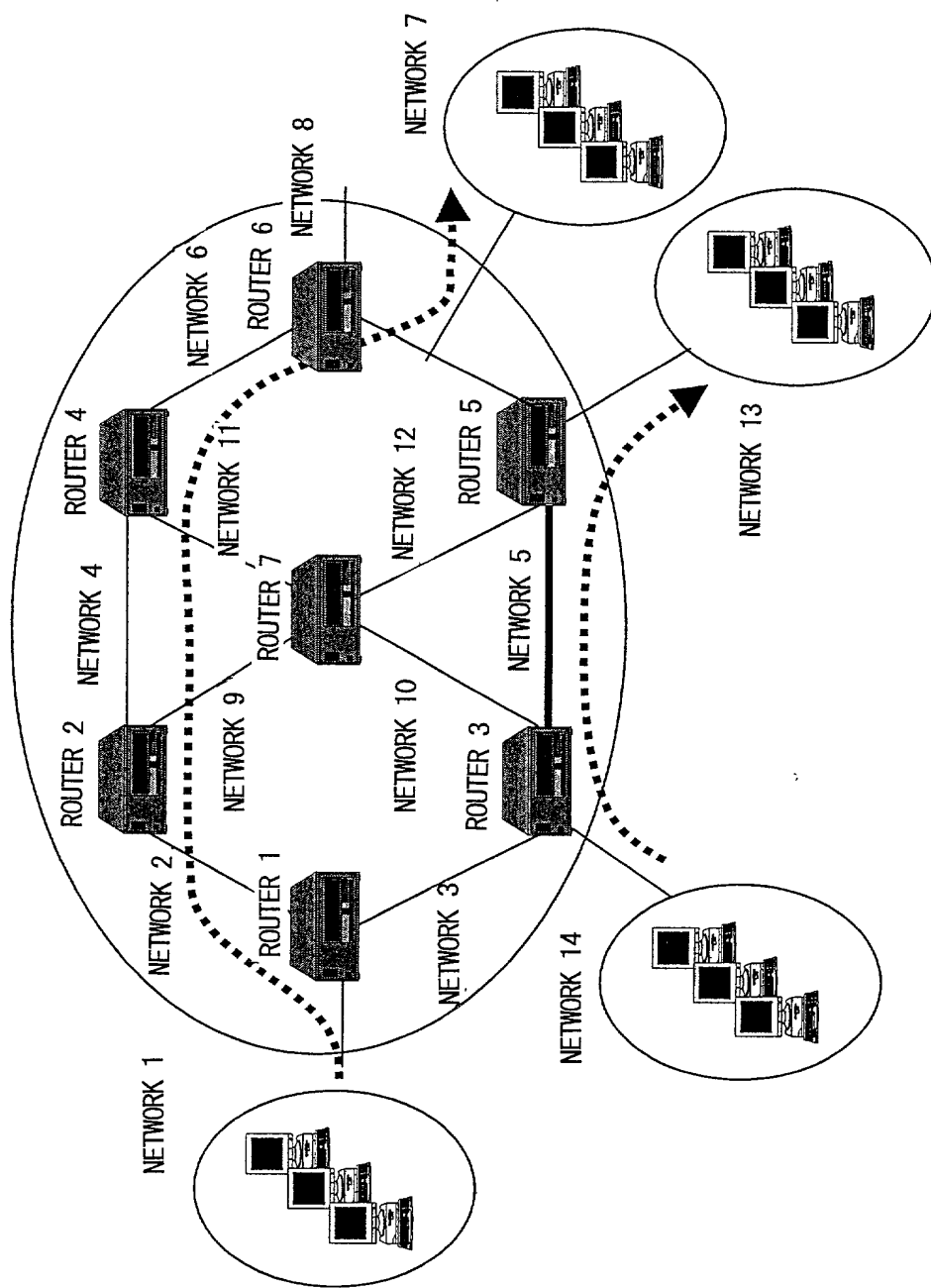


FIG.15

DATA DESTINATION	ROUTER OF NEXT STAGE	NUMBER OF ROUTERS
NETWORK 7	ROUTER 3	3
:	:	:
:		:
:		:

← 1401



UPDATE BASED ON RECEIVED
CONGESTION INFORMATION

DATA DESTINATION	ROUTER OF NEXT STAGE	NUMBER OF ROUTERS	EXCEPTIONAL CONDITION
NETWORK 7	ROUTER 2	4	[ルータ3へ転送] ・TRANSMISSION SOURCE IP ADDRESS: xxx.xx.xxx.xxx ・INTERFACE:#y ・PROTOCOL ID:z
:	:	:	
:		:	
:		:	

← 1402

FIG. 16

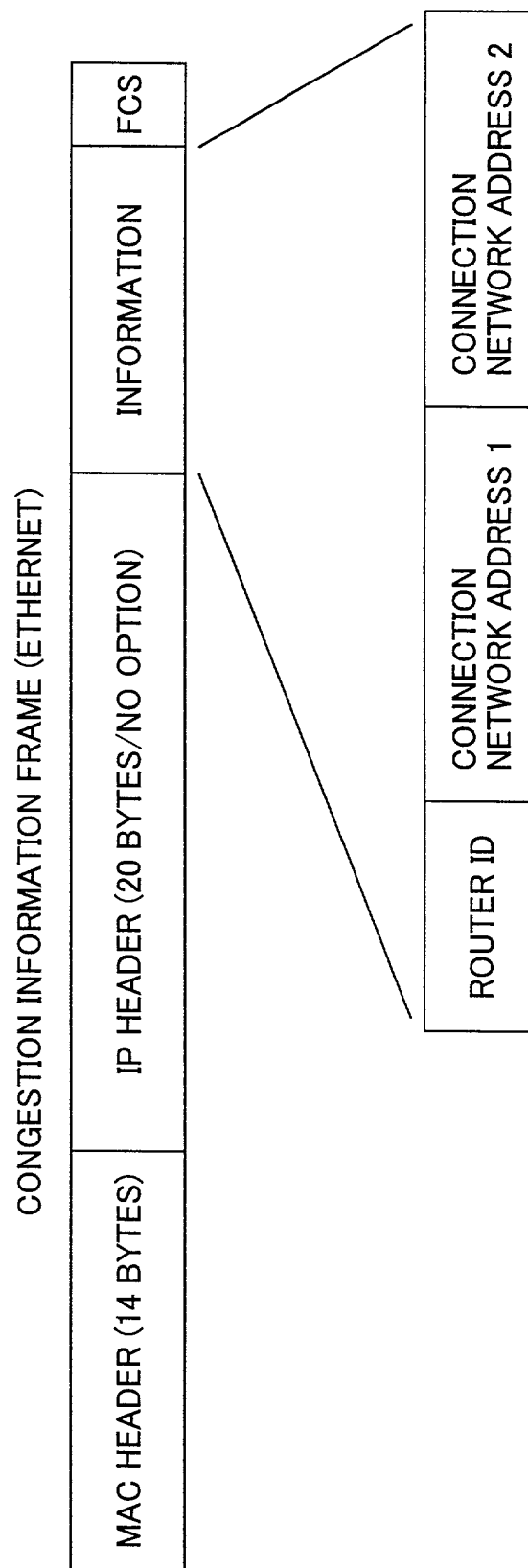


FIG. 17

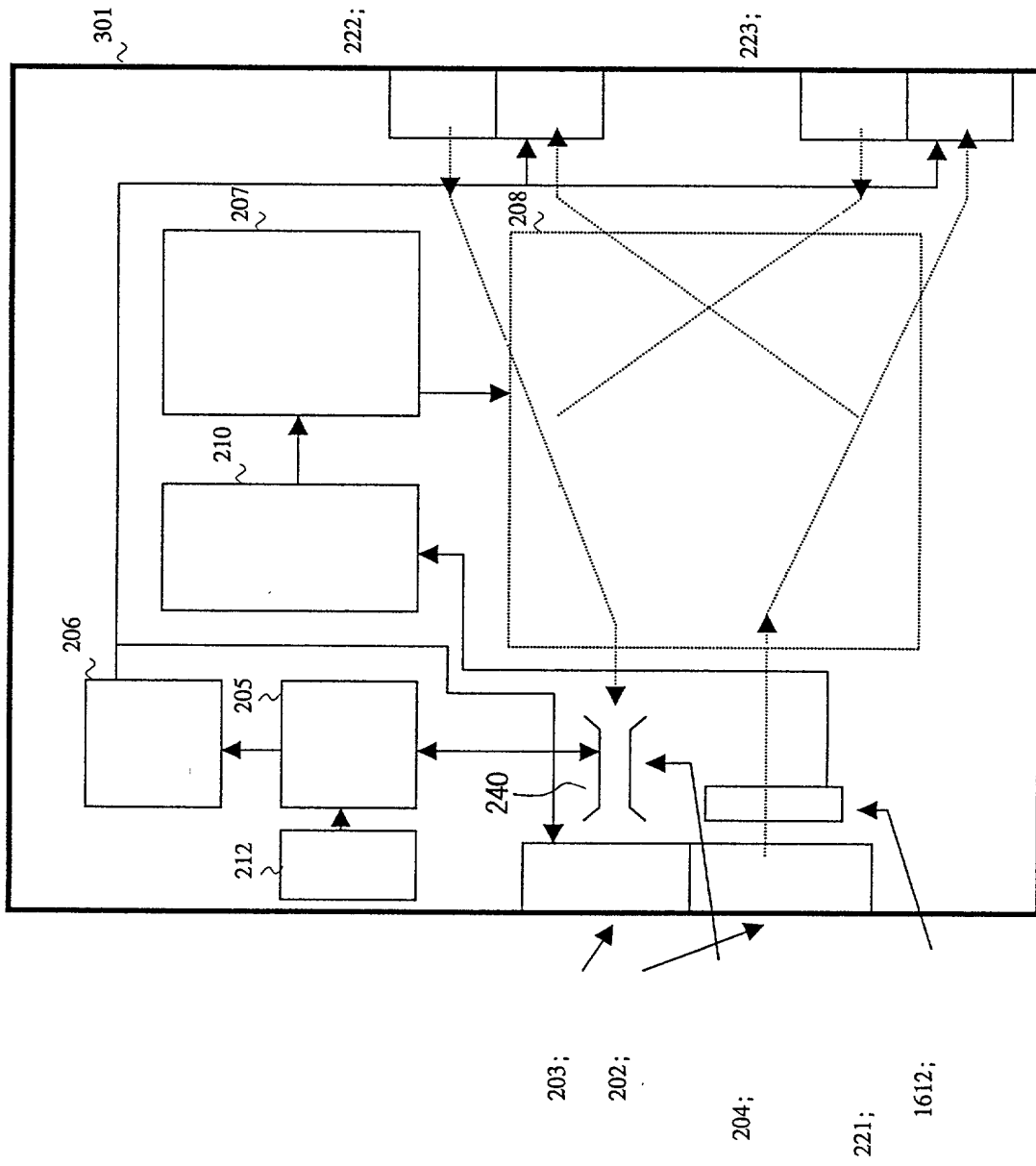


FIG. 18

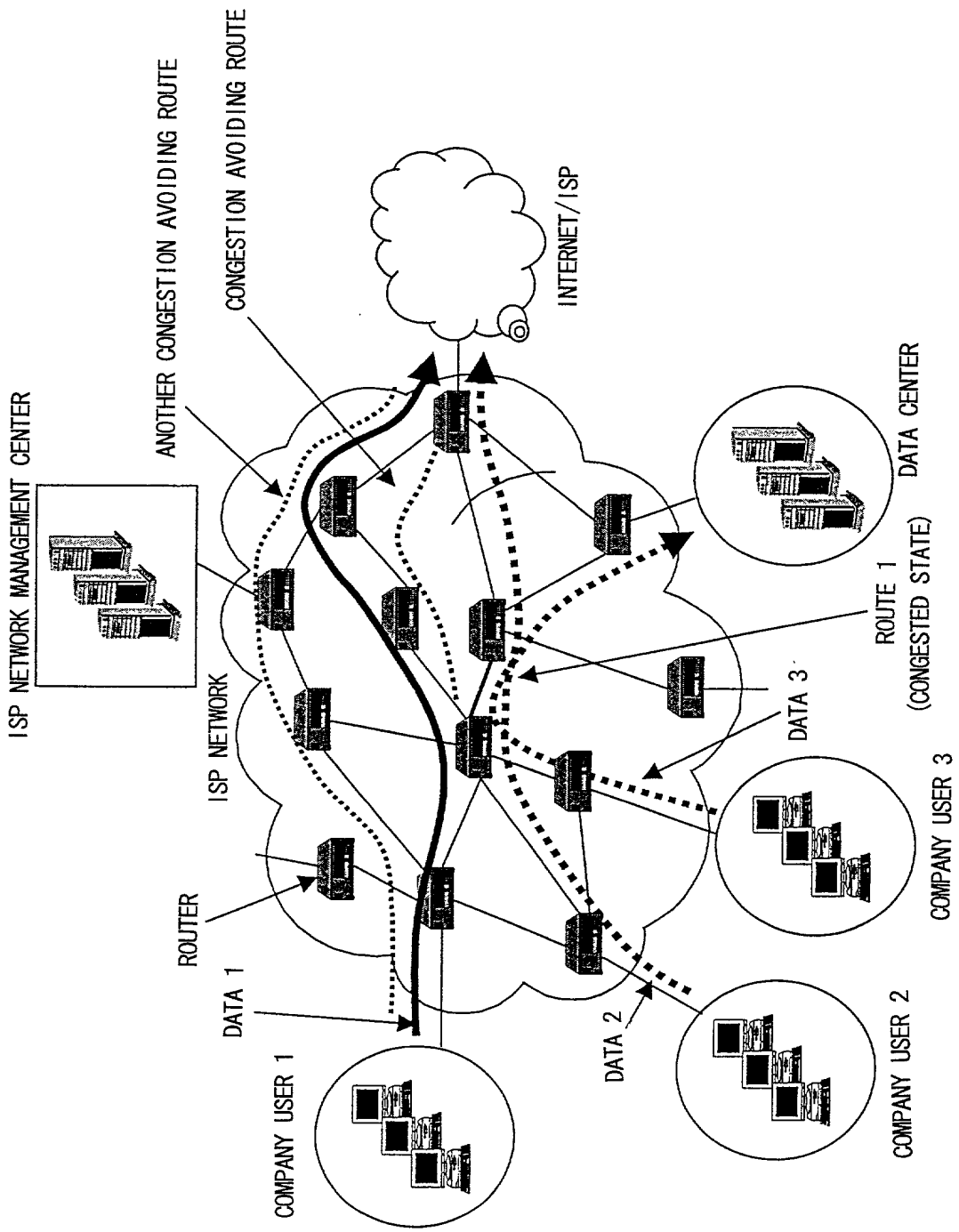
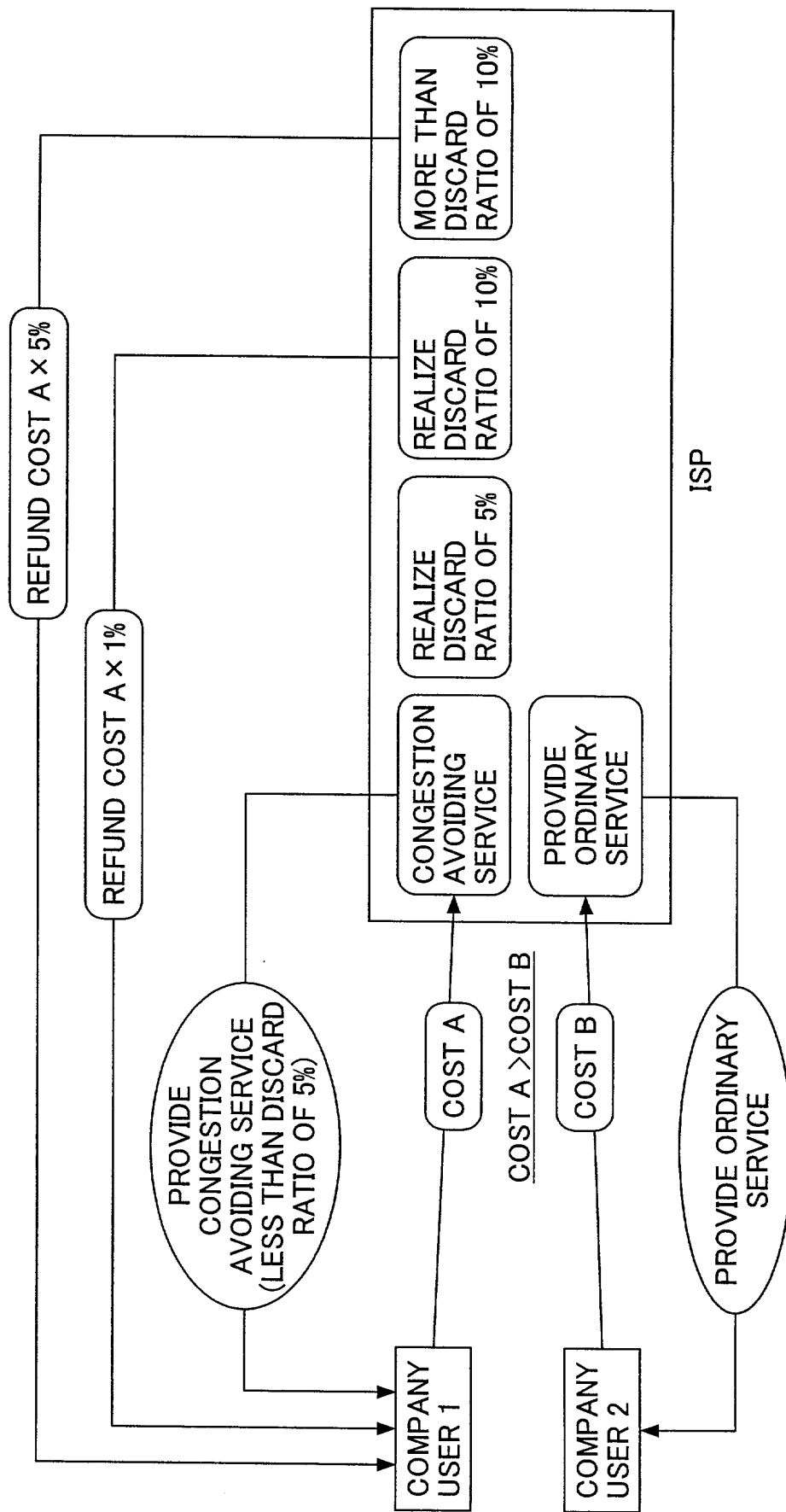


FIG.19



0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3
Version		IHL		Type of Service				Total Length															
Identification				Flags				Fragment Offset															
Time to Live				Protocol				Header Checksum															
Source Address																							
Destination Address																							
Options												Padding											

FIG. 21

